UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,333	07/31/2003	Vanish Talwar	200311035-2	3580

22879 7590 10/30/2007		EXAMINER
HEWLETT PACKARD COMPANY		SWEARINGEN, JEFFREY R
P O BOX 272400, 3404 E. HARMONY ROAD		
INTELLECTUAL PROPERTY ADMINISTRATION	ART UNIT	PAPER NUMBER
FORT COLLINS, CO 80527-2400	2145	

MAIL DATE	DELIVERY MODE
10/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/632,333	TALWAR ET AL.
	Examiner	Art Unit	
	Jeffrey R. Swearingen	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 August 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12 and 15-20</u> is/are pending in the application.

    4a) Of the above claim(s) <u>13 and 14</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12 and 15-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 8/22/2007 have been fully considered but they are not persuasive.

2.   Applicant argued Naik failed to disclose *receiving a user request for an interactive session*. In [0070], the clients send service requests for a specific QoS level. This is *a user request for an interactive session*, per the claim language. Further support for interactive sessions is found in [0074].

3.   Applicant argued Naik failed to disclose *identifying any application programs needed to be launched in said interactive session*. In [0070], it is shown that within the request is the type of service requested or the expected QoS level. The type of service requested is the identification of *any application programs needed to be launched in said interactive session*.

4.   Applicant argued Naik failed to disclose *generating a contract for the interactive session specifying resource allocations and authorizations* and *allocating resources for the interactive session in accordance with the contract*. In [0070], a QoS level is requested. The request is assigned to a service based upon the level of QoS that the service can guarantee. This handshaking between the requestor and service includes information negotiating the data transfer rates to be established in the virtual channel. The negotiation of the transfer rates based upon the requested level of QoS and the available QoS at the service is the *generation of a contract* as claimed by Applicant.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1, 3, 5-8, 10, 12, 15, and 17 and 19-20 are rejected under 35 U.S.C. 102(e) as being

anticipated by Naik et al. (US 2006/0294238).

7.   Regarding claim 1, Naik et al. anticipates a method for resource allocation management for an

interactive session on a grid computing system (Abstract), comprising: receiving a user request for an

interactive session (section• 0070, lines 1-5, with the clients sending a request for a grid service);

identifying any application programs needed to be launched in said interactive session (section 0110-

0111, with service requests requesting certain grid services, seen as applications); determining resource

requirements for said interactive session including processor, network bandwidth, executables and files

requirements (section 0055-0056, and 0058, with resources such as CPU utilization, network access, and

memory, paging, and disk access as criteria being monitored for service request allocation and section

0110-0111, with executables and files being requested seen as part of the grid resource requirements to

be determined upon service execution); generating a contract for the interactive session specifying

resource allocations and authorizations (section 0064- 0066, with the contract being made of resource

policies, seen as authorizations as they govern which services can be deployed on a certain resource,

and grid policies, seen as resource allocations, since they monitor quality of service aspects and can

allocate resources only when resources are available in terms of quality, and section 0060, with policies

being represented as a textual entity); and allocating resources for the interactive session in accordance

with the contract (section 0070-0071, with the service request being processed according to the mapping

function, which uses the resource and grid polices).

8.   Regarding claim 3, Naik et al. anticipates the method of claim 1, wherein:

the step of determining resource requirements includes consulting one or more application profile files

which provide information concerning resource requirements for individual applications (section 0112,

with each service offered being associated with a class type, thus each service has different resource

requirements with different minimum service guarantees).

9.   Regarding claim 5, Naik et al. anticipates the method of claim 1, wherein: the step of generating

said contract includes generating an authorization policy and a service level agreement (section 0064-

0066, with the contract, or policies being taken into account, being made of resource policies, seen as

authorization policies as they govern which services can be deployed on a certain resource, and grid policies, seen as a service level agreement, since theymonitor quality of service aspects and can allocate resources only when resources are available in terms of quality).

10.   Regarding claim 6, Naik et al. anticipates the method of claim 1, further comprising: monitoring the interactive session to ensure compliance with the terms of the contract (section 0076, with the monitoring agent watching resources to comply with the policies enforced by the policy handler).

11.   Regarding claim 7, Naik et al. anticipates the method of claim 1, wherein: the step of allocating resources for the interactive session is performed by a grid scheduler which receives the user request and the contract (section 0070-0071, with the request being sent to the GSRP and the GSRP uses the agreed upon quality of service, resource policies, and grid policies, to process the request).

12.   Regarding claim 8, Naik et al. anticipates asystem for managing resource allocation for an interactive session on a grid computing system (Abstract), comprising: one or more processors; one or more memories Coupled to the one or more processors; and program instructions stored in the one or more memories (section 0049, with the system operating on computer systems), the one or more processors for executing program instructions including: receiving a user request for an interactive session (section 0070, lines 1-5, with the clients sending a request for a grid service); identifying any application programs needed to be launched in said interactive session (section 0110-0111, with service requests requesting certain grid services, seen as applications); determining resource requirements for said interactive session including processor, network bandwidth, executables and files requirements (section 0055-0056, and 0058, with resources such as CPU utilization, network access, and memory, paging, and disk access as criteria being monitored for service request allocation and section 0110-0111, with executables and files being requested seen as part of the grid resource requirements to be determined upon service execution); generating a contract for the interactive session specifying resource allocations and authorizations (section 0064-0066, with the contract being made of resource policies, seen as authorizations as they govern which services can be deployed on a certain resource, and grid policies, seen as resource allocations, since they monitor quality of service aspects and can allocate resources only when resources are available in terms of quality, and section 0060, with policies being

represented as a textual entity); and allocating resources for the interactive session in accordance with the contract (section 0070-0071, with the service request being processed according to the mapping function, which uses the resource and grid polices).

13.   Regarding claim 10, Naik et al. anticipates the system of claim 8, further comprising: an application profiles repository for providing information concerning resource requirements for individual applications (section 0112, with each service offered being associated with a class type, thus each service has different resource requirements with different minimum service guarantees).

14.   Regarding claim 12, Naik et al. anticipates the system of claim 8, further comprising: a grid scheduler which receives the user request and the contract and performs step of allocating resources for the interactive session (section 0070-0071, with the request being sent to the GSRP and the GSRP uses the agreed upon quality of service, resource policies, and grid policies, to process the request).

15.   Regarding claim 15, Naik et al. anticipates a system for managing resource allocation for an interactive session on a grid computing system (Abstract), comprising: a distributed resource management node, the distributed resource management node including a distributed resource management interface and a grid scheduler, the grid scheduler configured to receive a user request and output an admission control decision (section 0070-0071, with the GSRP receiving user request and provides requested services by taking in to account based on several policies, and the GSRP interfaces with the polices and the user as seen in Figure 9); a contract generation engine coupled to the distributed resource management node, the contract generation engine configured to determine resource requirements for the interactive session, and generate a contract specifying resource allocations and authorizations (section 0101-0105, with the tGRM receiving resource information about services or interest and also group policies, defined in section 0088, seen as authorizations, and using it in the QoS mapper to deploy the correct amount of services and it select appropriate resources based on the requirement of the service, seen as part of a contract since it allocates resources and authorizations); and a contract repository configured to store the contract (Figure 9, with Items 500 and 600, seen as items that store the contracts that are used by the QoS mapper as described in section 0070 to map, allocate, and process service requests).

16.   Regarding claim 17, Naik et al. anticipates the system of claim 15, further comprising: an

application profiles repository for providing resource requirements information for individual applications

(section 0112, with each service offered being associated with a class type, thus each service has

different resource requirements with different minimum service guarantees).

17.   In regard to claims 19-20, Naik further discloses *the contract includes a service level agreement.*

In [0070], a QoS level is requested. The request is assigned to a service based upon the level of QoS

that the service can guarantee. This handshaking between the requestor and service includes

information negotiating the data transfer rates to be established in the virtual channel. The negotiation of

the transfer rates based upon the requested level of QoS and the available QoS at the service is the

generation of a contract as claimed by Applicant. The negotiated QoS between the requestor and the

service is the *service level agreement.*

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

19.   Claims 2, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al.

(US 2006/0294238) in view of Redbooks Paper: Fundamentals of Grid Computing (IBM, by Viktor

Berstis).

20.   Regarding claims 2, 9, and 16, Naik et al. discloses all of the limitations as described above,

however Naik et al. does not disclose consulting a user directory to identify applications which the user is

authorized to use, however Naik et al. does teach authenticating a user (Figure 9, Item 610). The general

concept of allowing access to only certain users in a grid computing system is well known in the art as

illustrated by Berstis. Berstis describes grid computing and its resource management. Berstis teaches that

an administrator can set up user permissions for controlling user rights and that user ID's can be

employed to control which part of the donor machine the users are entitled to access (page 21-23, in "An Administrator's Perspective"). This is seen as using user authorization to permit access to only certain resources available to the user in a grid system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Naik et al. with using user permissions as taught by Berstis in order to ensure the security of the grid computer as noted in Berstis' "Certificate Authority" section on page 22.

21.   Claims 4, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naik et al. (US 2006/0294238) in view of McKinnon, III et al. (US 6,823,385).

22.   Regarding claims 4, 11, and 18, Naik et al. discloses all of the limitations as described above except for using a user class information base to determine what class a user belongs to in order to provide different resource allocations to each different user class. The general concept of using user class to determine resources to allocate to each user is well known in the art as illustrated by McKinnon, III et al. McKinnon, III et al. teaches allocating resources to a user based on their class. McKinnon, III et al. describes that bandwidth, seen here as a resource, is allotted to each user based on their class and their allocation policy (column 10, lines 35-47). This is seen as using user class to determine a resource allocation policy. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Naik et al. with using a user class based policy for resource allocation as taught by McKinnon, III et al. in order to facilitate competing demands for network resources as noted in McKinnon, III et al.'s disclosure in column 3, lines 28-31.

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

| McKinnin, III et al. | US 6,917,628 B2 |
| Radhakrishnan | US 7,284,054 B2 |

24.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can

normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

Jason Cardone
Supervisory Patent Examiner
Art Unit 2145

JRS